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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/901,988 | 07/10/2001 | Clive Tang | 59864.00660 | 7923 |
| 32294 | 7590 | 10/17/2006 | EXAMINER | |
| SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182 | | | GHEBRETINSAE, TEMESGHEN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2611 | |

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/901,988 | TANG, CLIVE | |
| | Examiner | Art Unit | |
| | Temesghen Ghebretinsae | 2611 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “56” has been used to designate both “LRI” and “line” inputted to encoder 42”. The same is true for character “58” has been used to designate both “calculator” and “line58”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the

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description: reference "82" see page 18, line 18. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 18,21,14-15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 18, "the method of claim 16, comprising performing selecting..." is not clear.

Claim 21 is unclear as claimed now. It seems that claim 21 is explicitly and improperly intended to combine two separate statutory classes of invention in a single claim.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-11, 16-17, 22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida (6,452,964).

Consider claims 16-17, 22-23 as claimed now. Yashida discloses an apparatus comprising selecting means for selecting the at least a first switching threshold responsive to indication of a selected communication indicia associated with communication characteristics of a communication channel (104, 105, 106); selecting means for selecting the modulation parameter (104, 105, 106); changing means for changing the least the first switching threshold responsive to the changes in the indications of the selected communication indicia; and means for selectable changing the modulation parameter. (see fig. 2 104, 105, 106, 109)

7. Consider claims 1-11. Yashida discloses an apparatus (fig. 2) comprising means (104, 105, 106) to receive indications of a selected communication indicia associated with communication characteristics of a communication channel; said means for calculator (104, 105, 106) being configured to select the at least the first switching threshold, the first switching threshold changeable responsive to changes in the selected communication indicia, and the first switching threshold selected by the means (104, 105, 106) to least satisfy a first performance criteria and to satisfy at least a second performance criteria.

The selected communication indicia to which the means is coupled to receive indication thereof comprises error indicia representative of errors introduced upon the

data during communication upon the communication channel (see fig.3 col. 7, line 59, to col. 8, line 28) as claimed in claims 3-4.7 and 8.

The data transmitted by the first communication station is transmitted to a second communication station, wherein the second communication station is coupled in a feedback arrangement with the first communication to return to the first communication station a report representative of the communication characteristics of the communication channel (see fig. 2, Transceiver A and transceiver B) as claimed in claims 5-6.

The apparatus further comprises a modulator parameter selector coupled to the means for calculator. (104,105,106) as claimed in claims 9-11.

Yashida (or Edwards) differ from the claimed invention in that both do not disclose an algorithm to select the first switching threshold or the modulation parameters as claimed in claims 18-20 and 21,13-15. However, both Yashida (or Edwards) disclose a means or device (functionally equivalent) to select the at least first switched threshold responsive to indication of a selected communication indicia associated with communication characteristics of a communication channel (see fig.2 of Yashida or fig.2 of Edwards).

8. Claims 16-17,22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Edwards et al. (6,198,734).

Consider claims 16-17,22-23 as claimed now. Edwards discloses an apparatus comprising selecting means for selecting the at least a first switching threshold responsive to indication of a selected communication indicia associated with

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communication characteristics of a communication channel; selecting means for selecting the modulation parameter ; changing means for changing the least the first switching threshold responsive to the changes in the indications of the selected communication indicia; and means for selectable changing the modulation parameter.(see fig. 2)

Response to Arguments

9. Applicant's arguments with respect to claims 1-11,13-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temesghen Ghebretinsae whose telephone number is 571-272-3017. The examiner can normally be reached on Monday-Friday from 8 to 6. The examiner can also be reached on alternate .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.G.

10/13/06.

Temesghen Ghebretinsae
Primary Examiner
Art Unit 2611

TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER
10/13/06